APPENDIX F

Calibration Gas Certificates / Equipment Calibrations

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

DocNumber: 000035385

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

MAINE OXY
22 ALBISTON WAY
AUBURN ME 042100

Praxair Order Number: 03452243
Customer P. O. Number: 100594
Customer Reference Number:

Fill Date: 2/20/2012
Part Number: EV AIPR8500E-AS
Lot Number: 109205114
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date:	3/2/2015	NIST Traceable
Cylinder Number:	CC111354	Analytical Uncertainty:
8367 ppm	PROPANE	± 1 %
Balance	AIR	

Certifcation Information: *Certification Date:* 3/2/2012 *Term:* 36 Months *Expiration Date:* 3/2/2015

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G1
Do Not Use this Standard if Pressure is less than 150 PSIG
PGVP I.D.# F22012

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: PROPANE

Requested Concentration: 8500 ppm
Certified Concentration: 8367 ppm
Instrument Used: HP 5890 Series II S/N 3108A34409
Analytical Method: GC/ Thermal Conductivity
Last Multipoint Calibration: 2/11/2012

First Analysis Data:					Date: 3/2/2012
Z: 0	R: 710830	C: 587712	Conc:	8351	
R: 709187	Z: 0	C: 587699	Conc:	8370	
Z: 0	C: 587041	R: 707581	Conc:	8379	
UOM: uV		Mean Test Assay:		8367 ppm	

Reference Standard Type: GMIS
Ref. Std. Cylinder # : CC 163608
Ref. Std. Conc: 1.01 %
Ref. Std. Traceable to SRM # : vs. 2647a
SRM Sample # : 104-4-B
SRM Cylinder # : FF 26607

Second Analysis Data:					Date:
Z: 0	R: 0	C: 0	Conc:	0	
R: 0	Z: 0	C: 0	Conc:	0	
Z: 0	C: 0	R: 0	Conc:	0	
UOM: uV		Mean Test Assay:		0 ppm	

Analyzed by: Rolonda Kaywood

Certified by: Shameela Jiffrey

PRAXAIR

Praxair Distribution Mid-Atlantic
145 Shimersville Rd.
Bethlehem, PA 18015
Telephone: (610) 317-1608
Facsimile: (610) 758-8382

DocNumber: 000016765

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

MAINE OXY
22 ALBISTON WAY
AUBURN ME 042100

Praxair Order Number: 03519131
Customer P. O. Number: 103290
Customer Reference Number:

Fill Date: 3/20/2012
Part Number: Al PR5000E-AS
Lot Number: 917208047
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 1280 psig 91cu. ft.

Certified Concentration:

Expiration Date:		3/26/2015	NIST Traceable
Cylinder Number:		SA20684	Analytical Uncertainty:
5010	ppm	PROPANE	± 1 %
Balance		AIR	

Certifcation Information: *Certification Date:* 3/26/2012 *Term:* 36 Months *Expiration Date:* 3/26/2015

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G1
Do Not Use this Standard if Pressure is less than 150 PSIG
PGVP ID#F12012

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: PROPANE

Requested Concentration: 5000 ppm
Certified Concentration: 5010 ppm
Instrument Used: VARIAN 3300 INST 023 (PROPANE)
Analytical Method: FID
Last Multipoint Calibration: 3/7/2012

First Analysis Data:					Date: 3/26/2012
Z: 0	R: 4941.5	C: 5010	Conc:	5009.5	
R: 4945	Z: 0	C: 5009.4	Conc:	5008.9	
Z: 0	C: 5013.5	R: 4943.9	Conc:	5013.0	
UOM: PPM		Mean Test Assay:		5010.5 PPM	

Reference Standard Type: GMIS
Ref. Std. Cylinder # : ND22127
Ref. Std. Conc: 4943 PPM
Ref. Std. Traceable to SRM # : 2648a
SRM Sample # : 105-C-16
SRM Cylinder # : XF000465B

Second Analysis Data:					Date:
Z: 0	R: 0	C: 0	Conc:	0	
R: 0	Z: 0	C: 0	Conc:	0	
Z: 0	C: 0	R: 0	Conc:	0	
UOM: PPM		Mean Test Assay:		0 PPM	

Analyzed by: John Pribish

Certified by: Michelle Kostik

PRAXAIR

Praxair Distribution Mid-Atlantic
145 Shimersville Rd.
Bethlehem, PA 18015
Telephone: (610) 317-1608
Facsimile: (610) 758-8382

DocNumber: 000016191

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

MAINE OXY
22 ALBISTON WAY
AUBURN ME 042100

Praxair Order Number: 03452234
Customer P. O. Number: 100594
Customer Reference Number:

Fill Date: 2/17/2012
Part Number: Al PR5000E-AS
Lot Number: 917205147
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 1540 psig 112 cu. ft.

Certified Concentration:

Expiration Date:	2/22/2015	NIST Traceable
Cylinder Number:	CC311566	Analytical Uncertainty:
5052 ppm	PROPANE	± 1 %
Balance	AIR	

Certifcation Information: *Certification Date:* 2/22/2012 *Term:* 36 Months *Expiration Date:* 2/22/2015

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G1
Do Not Use this Standard if Pressure is less than 150 PSIG
PGVP ID#F12012

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. **Component: PROPANE**

Requested Concentration: 5000 ppm
Certified Concentration: 5052 ppm
Instrument Used: VARIAN 3300 INST 023 (PROPANE)
Analytical Method: FID
Last Multipoint Calibration: 2/8/2012

First Analysis Data:						Date:	2/22/2012
Z:	0	R:	4943.4	C:	5046.6	Conc:	5047
R:	4943.8	Z:	0	C:	5055.3	Conc:	5055.7
Z:	0	C:	5052.2	R:	4940.7	Conc:	5052.6
UOM:	PPM			Mean Test Assay:			5051.7 PPM

Reference Standard Type: GMIS
Ref. Std. Cylinder # : ND22127
Ref. Std. Conc: 4943 PPM
Ref. Std. Traceable to SRM # : 2648a
SRM Sample # : 105-C-16
SRM Cylinder # : XF000465B

Second Analysis Data:						Date:	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	PPM			Mean Test Assay:			0 PPM

Analyzed by: Robin Morgan

Certified by: Michelle Kostik

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

DocNumber: 000040307

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

WELCO CGI GAS TECH LLC GAS
PO BOX 1377
DES MOINES IA 503050

Praxair Order Number: 20728053
Customer P. O. Number: 3708607-MAINE
Customer Reference Number:

Fill Date: 6/27/2012
Part Number: EV AIPR3000E-AS
Lot Number: 109217909
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date:	7/10/2015	NIST Traceable
Cylinder Number:	CC103130	Analytical Uncertainty:
2961 ppm	PROPANE	± 1 %
Balance	AIR	

Certification Information: *Certification Date:* 7/10/2012 *Term:* 36 Months *Expiration Date:* 7/10/2015

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G1
Do Not Use this Standard if Pressure is less than 150 PSIG
PGVP I.D.# F22012

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: PROPANE

Requested Concentration: 3000 ppm
Certified Concentration: 2961 ppm
Instrument Used: HORIBA, FIA-510, 851135122
Analytical Method: Flame Ionization
Last Multipoint Calibration: 6/11/2012

Reference Standard Type: GMIS
Ref. Std. Cylinder # : SA 16840
Ref. Std. Conc: 2656 ppm
Ref. Std. Traceable to SRM # : vs. 2647a
SRM Sample # : 104-4-B
SRM Cylinder # : FF26607

First Analysis Data:						Date:	7/6/2012
Z:	0	R:	194772	C:	216456	Conc:	2952
R:	194112	Z:	0	C:	217248	Conc:	2972
Z:	0	C:	215749	R:	193553	Conc:	2960
UOM:	ppm			Mean Test Assay:			2961 ppm

Second Analysis Data:						Date:	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	ppm			Mean Test Assay:			0 ppm

Analyzed by: Shameela Jiffrey

Certified by: sYing Yu

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

DocNumber: 000040326

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

WELCO CGI GAS TECH LLC GAS
PO BOX 1377
DES MOINES IA 503050

Praxair Order Number: 20728094
Customer P. O. Number: 3708404-MAINE
Customer Reference Number:

Fill Date: 6/27/2012
Part Number: EV AIME850ME-AS
Lot Number: 109217904
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date:		7/10/2015	NIST Traceable
Cylinder Number:		CC246069	Analytical Uncertainty:
860	ppm	METHANE	± 2 %
Balance		AIR	

Certifcation Information: *Certification Date:* 7/10/2012 *Term:* 36 Months *Expiration Date:* 7/10/2015

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G2
Do Not Use this Standard if Pressure is less than 150 PSIG
G2 analysis was done using STEC INC SGD-710c @20% (cf=0.2). PGVP I.D.# F22012

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. **Component: METHANE**

Requested Concentration: 850 ppm
Certified Concentration: 860 ppm
Instrument Used: HORIBA, FIA-510, 851135122
Analytical Method: Flame Ionization Detector
Last Multipoint Calibration: 6/11/2012

First Analysis Data:						Date:	7/6/2012
Z:	0	R:	229	C:	171.4	Conc:	171
R:	229	Z:	0	C:	171.6	Conc:	172
Z:	0	C:	172.8	R:	229	Conc:	173
UOM:	ppm			Mean Test Assay:			172 ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder # : CC 8633
Ref. Std. Conc: 229 ppm
Ref. Std. Traceable to SRM # : vs. 2751
SRM Sample # : 212-09-AL
SRM Cylinder # : SX-20000

Second Analysis Data:						Date:	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	ppm			Mean Test Assay:			0 ppm

Analyzed by: Shameela Jiffrey

Certified by: Ying Yu

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

DocNumber: 000040325

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

WELCO CGI GAS TECH LLC GAS
PO BOX 1377
DES MOINES IA 503050

Praxair Order Number: 20728094
Customer P. O. Number: 3708404-MAINE
Customer Reference Number:

Fill Date: 6/27/2012
Part Number: Al ME500E-AS
Lot Number: 109217905
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date:	7/10/2015	NIST Traceable
Cylinder Number:	CC72704	Analytical Uncertainty:
504 ppm	METHANE	± 2 %
Balance	AIR	

Certifcation Information: *Certification Date:* 7/10/2012 *Term:* 36 Months *Expiration Date:* 7/10/2015

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G2
Do Not Use this Standard if Pressure is less than 150 PSIG
G2 analysis was done using STEC-INC SGD-710c @ 40% (cf=0.4). PGVP I.D.# F22012

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: METHANE

Requested Concentration: 500 ppm
Certified Concentration: 504 ppm
Instrument Used: HORIBA, FIA-510, 851135122
Analytical Method: Flame Ionization Detector
Last Multipoint Calibration: 6/11/2012

First Analysis Data:						Date:	7/6/2012
Z:	0	R:	229	C:	202.4	Conc:	202
R:	229	Z:	,0	C:	202.4	Conc:	202
Z:	0	C:	200.8	R:	229	Conc:	201
UOM:	ppm			Mean Test Assay:			202 ppm

Reference Standard Type: GMIS
Ref. Std. Cylinder #: CC 8633
Ref. Std. Conc: 229 ppm
Ref. Std. Traceable to SRM #: vs. 2751
SRM Sample #: 212-09-AL
SRM Cylinder #: SX-20000

Second Analysis Data:						Date:	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	ppm			Mean Test Assay:			0 ppm

Analyzed by: Shameela Jiffrey

Certified by: Ying Yu

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Telephone: (323) 585-2154
Facsimile: (714) 542-6689

DocNumber: 000036571

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

WELCO CGI GAS TECH LLC GAS
PO BOX 1377
DES MOINES IA 503050

Praxair Order Number: 19725693
Customer P. O. Number: 3519338-MAINE
Customer Reference Number:

Fill Date: 3/27/2012
Part Number: EV AIME300ME-AS
Lot Number: 109208704
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date:	4/2/2015	NIST Traceable
Cylinder Number:	CC198791	Analytical Uncertainty:
290 ppm	METHANE	± 2 %
Balance	AIR	

Certifcation Information: *Certification Date:* 4/2/2012 *Term:* 36 Months *Expiration Date:* 4/2/2015

This cylinder was certified according to the 1997 EPA Traceability Protocol, Document #EPA-600/R-97/121, using Procedure G2

Do Not Use this Standard if Pressure is less than 150 PSIG

G2 analysis was done using STEC INC SGD-710 @ 70% {c.f.=0.7}
PGVP I.D.# F22012

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: METHANE

Requested Concentration: 300 ppm
Certified Concentration: 290 ppm
Instrument Used: HORIBA, FIA-510, 851135122
Analytical Method: Flame Ionization Detector
Last Multipoint Calibration: 3/11/2012

First Analysis Data:						Date:	4/2/2012
Z:	0	R:	229	C:	202.9	Conc:	203
R:	229	Z:	0	C:	203.1	Conc:	203
Z:	0	C:	202.6	R:	229	Conc:	203
UOM:	ppm			Mean Test Assay:			203 ppm

Analyzed by: Rolonda Kaywood

Reference Standard Type: GMIS
Ref. Std. Cylinder # : CC 8633
Ref. Std. Conc: 229 ppm
Ref. Std. Traceable to SRM # : vs. 2751
SRM Sample # : 212-09-AL
SRM Cylinder # : SX-20000

Second Analysis Data:						Date:	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	ppm			Mean Test Assay:			0 ppm

Certified by: Shameela Jiffrey

EASTMOUNT ENVIRONMENTAL SERVICES
Air Quality Specialists

PRESSURE TRANSDUCER CALIBRATION FORM

Ref. Manometer ID: 8" Manometer

Calibrated By: M. Bruni

Transducer ID: PT-1A

Calibration Date: 1-Oct-12

Transducer Scale: 5 inches

Percent of Transducer Scale	Ref. Manometer - Positive Leg (in. H2O)	Transducer- P1 (in. H2O)	Difference (in. H2O)	Difference as % of Transducer Scale	Status
10%	0.51	0.50	0.01	0.2	Pass
30%	1.50	1.52	0.02	0.4	Pass
60%	3.00	3.01	0.01	0.2	Pass
90%	4.50	4.49	0.01	0.2	Pass

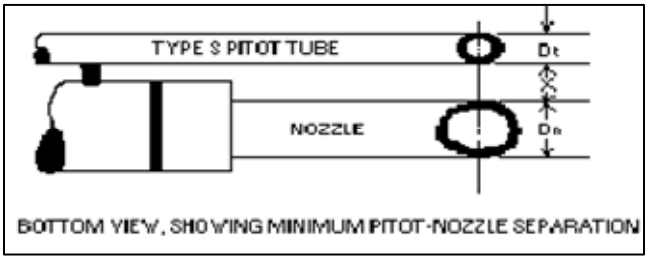
Percent of Transducer Scale	Ref. Manometer - Negative Leg (in. H2O)	Transducer- P2 (in. H2O)	Difference (in. H2O)	Difference as % of Transducer Scale	Status
10%	0.51	0.52	0.01	0.2	Pass
30%	1.50	1.49	0.01	0.2	Pass
60%	3.00	3.01	0.01	0.2	Pass
90%	4.50	4.49	0.01	0.2	Pass

Calibration Criteria: Reference Device and Transducer must agree within 2.0% of full transducer scale, or 0.02 inches H2O, whichever is less restrictive.

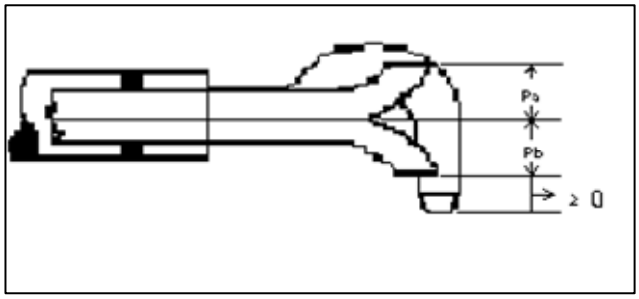
EASTMOUNT ENVIRONMENTAL SERVICES
Air Quality Specialists

Pitot Calibration Sheet

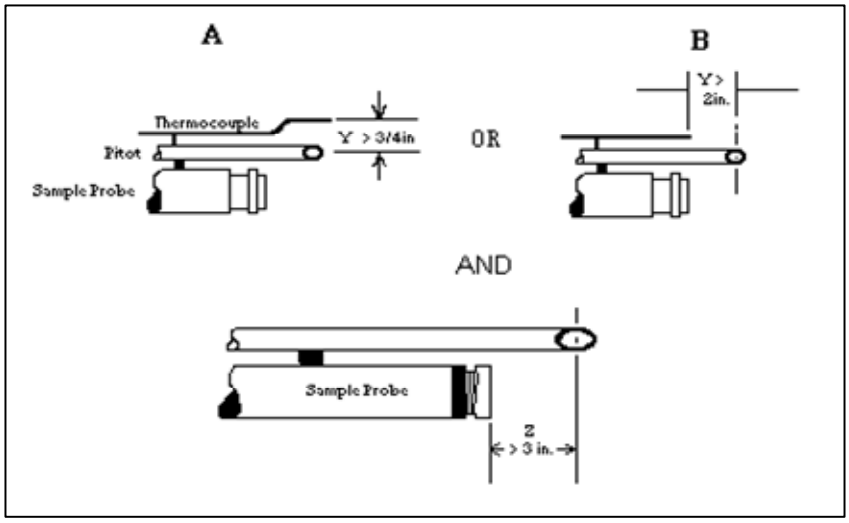
Technician:	Mike Bruni	Pitot ID:	S-2-1
Date Calibrated:	11/26/2012	Probe ID:	S-2-1
Next Due Cal Date:	11/26/2013		



0.193	Dt (between 0.188 and 0.375 in.)
N/A	X (greater than or equal to 3/4 in.)
N/A	Dn (must use 1/2 in. nozzle)



0.238	Pa	Pa must = Pb
0.238	Pb	
1.231	P(a) (Must be between 1.05 and 1.5 Dt)	
1.231	P(b) (Must be between 1.05 and 1.5 Dt)	



A
N/A Y (must be > 3/4in.)

or

B
N/A Y (must be > 2in.)

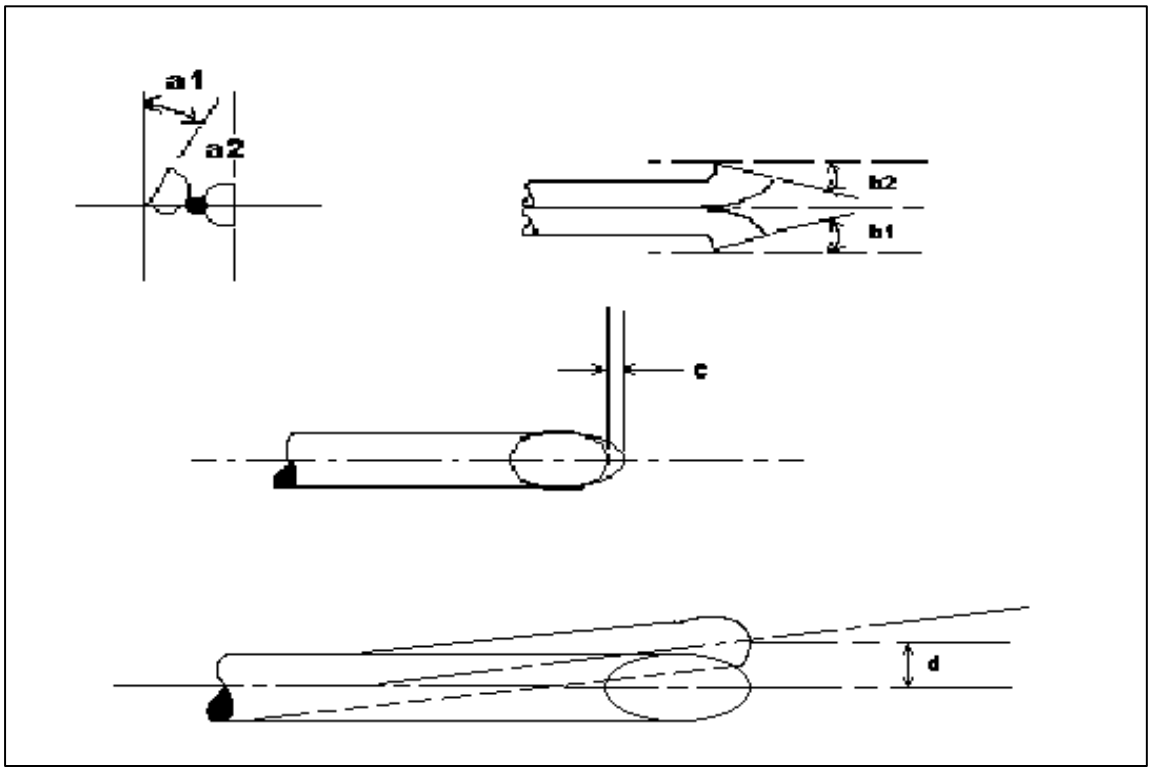
N/A Z (must be > 3in.)

* All calibrations are in accordance with CFR Pt.60, App.A, Meth.2, sect4.1.2 (Type S Pitot Calibration)

EASTMOUNT ENVIRONMENTAL SERVICES
Air Quality Specialists

Pitot Calibration Sheet

Technician:	Mike Bruni	Pitot ID:	S-2-1
Date Calibrated:	11/26/2012	Probe ID:	S-2-1
Next Due Cal Date:	11/26/2013		



Degrees		Inches		
0	a1			a1 and a2 must be < 10 degrees
1	a2			
0	b1			b1 and b2 must be < 5 degrees
0	b2			
1	α	0.008	c	c must be < 0.125 in. (1/8in.) where: c = (Pa+Pb) x sin α
1	Θ	0.00829	d	d must be < 0.03125 in (1/32in) where: d = (Pa + Pb) x sin Θ

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EASTMOUNT ENVIRONMENTAL SERVICES
Air Quality Specialists

Thermocouple Calibration

TC ID:	TC P-2-1	**Cal Date:**	6/1/2012	**Reference Type:**	Mercury in Glass
Tech.:	A. Stratton	**Exp Date:**	6/1/2013	**Reference Cert. No.:**	ASTM-3

Ice Bath (32°F)

	Ref Temp (T_R)	TC Temp (T_T)	% Error
Run 1	33	33	0.00%
Run 2	33	33	0.00%
Run 3	33	33	0.00%
		Pass/Fail	**PASS**

Ambient (~70°F)

	Ref Temp (T_R)	TC Temp (T_T)	% Error
Run 1	70	71	-0.29%
Run 2	70	71	-0.29%
Run 3	70	71	-0.29%
		Pass/Fail	**PASS**

Boiling Water (~212°F)

	Ref Temp (T_R)	TC Temp (T_T)	% Error
Run 1	212	214	-0.41%
Run 2	212	214	-0.41%
Run 3	212	214	-0.41%
		Pass/Fail	**PASS**

Test Pass/Fail **PASS**

Calibration tolerance for each run is 1.5%.

% Error = $(((T_R + 273) - (T_T + 273)) / (T_R + 273)) \cdot 100$

Calibration conducted in accordance with EPA Method 2, Section 10.3.

2 NEW PASTURE ROAD : UNIT 5 / NEWBURYPORT, MASSACHUSETTS 01950
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An Eastmount Company